

REMARKS

Claims 1-19 are pending in this application. Claims 12-15 have been allowed, claims 3 and 4 have been objected to on formal grounds only and were deemed to present allowable subject matter, and claims 1, 2, 5-11 and 16-19 have been rejected. The specification, Fig. 7, and claims 1-11, 15, 16 and 18 have been amended. Claims 1, 3-7, 10-12, 16 and 18 are independent.

The Examiner is thanked for the allowance of claims 12-15, and the indicated allowability of claims 3 and 4. Claims 3 and 4 have been placed into independent form, which the Examiner stated would render those claims allowable. Claims 12-15 have been maintained unchanged, and so are believed to remain allowable at least for the reasons already given.

Claim 8 has been revised for consistency with page 22, lines 18-23, of the specification.

Various other claim changes merely improve the form of the claims, without narrowing their scope. Such changes are not intended to alter the scope of equivalents to which the claims may be entitled.

In amended Fig. 7, reference labels "771", "772" and "773" have been changed respectively to reference labels --761--, --762-- and --763--. Both a replacement drawing sheet and an annotated drawing sheet have been submitted herewith.

The Objection to the Drawings

The drawings have been objected to on grounds reference characters "771" and "772" were used to designate certain structures in Figs. 6, 12 and 13, and different structures in Fig. 7.

Fig. 7 has been carefully reviewed and revised to attend to these points; reference labels "771", "772" and "773" have been changed respectively to reference labels --761--, --762-- and --763-- (these changes are reflected in the replacement and annotated drawing sheets submitted herewith). In addition, the specification at page 30 has been revised to conform to the modified drawing.

Accordingly, favorable reconsideration and withdrawal of this objection are respectfully requested.

**The Objections
to the Claims**

Claim 3 has been objected to on grounds the term "jumpre" is misspelled.

The Examiner is thanked for calling attention to this point; claim 3 has been suitably revised.

Claim 8 has been objected to on grounds the feature "two sensor terminal portions" lacks antecedent basis.

Claim 7, from which claim 8 depends, has been revised to provide for "a plurality of sensor terminals". Claim 8 has been amended to refer to "said sensor terminals". Accordingly, it is believed the term "sensor terminals" has a proper antecedent basis.

For all the foregoing reasons, favorable reconsideration and withdrawal of this objection are respectfully requested.

**The Rejection Under
35 U.S.C. § 102**

Claims 1, 2, 5, 6, 16 and 17 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Appln. Publn. No. 2001/0019343 to Walker et al. For the following reasons, Applicants respectfully traverse this rejection.

As described in claim 1, this invention involves an information communicating member to be disposed on a liquid container for supplying liquid to the liquid ejecting head of a liquid ejection apparatus. This information communicating member includes an information storing portion storing therein liquid information with regard to the liquid contained in the liquid container, an antenna portion for communicating the liquid information stored in the information storing portion between the information communicating member and the liquid ejection apparatus in a wireless manner, and a base member with a surface on which both the information storing portion and the antenna portion are directly disposed. The base member has an electric insulating property and an ultraviolet ray shielding property.

Applicants' invention, as set out in claim 10, also relates to a liquid container for supplying liquid to the liquid ejecting head of a liquid ejecting apparatus. This liquid container has a sensor for detecting the remaining amount of liquid in the liquid container and an information communicating member disposed on the liquid container. The information communicating member includes an information storing portion and storing therein liquid information with regard to the liquid contained in the liquid container, an antenna portion for communicating the liquid information stored in the information storing portion between the information communicating member and the liquid ejecting apparatus in a wireless manner, plural sensor terminal portions for electrically connecting the information storing portion to the sensor, and a base member with a surface on which each of the information storing portion, the antenna portion and the sensor terminal portions are directly disposed, and plural connecting wire portions electrically connecting the sensor terminal portions and the information storing portion. The connecting wire portions are at least in part aligned in parallel with each other on the base member.

Further, claim 11 is directed to a liquid ejecting apparatus with a liquid ejecting head, a first antenna portion, a liquid container detachably mounted on the liquid ejecting apparatus for supplying liquid to the liquid ejecting head, and a sensor, disposed on the liquid container, for detecting the remaining amount of the liquid contained in the liquid container. The apparatus also includes an information communicating member disposed on the liquid container, and the information communicating member includes an information storing portion and storing therein liquid information with regard to the liquid contained in the liquid container, a second antenna portion for communicating the liquid information stored in the information storing portion between the information communicating member and the liquid ejecting apparatus in a wireless manner using the first antenna portion, plural sensor terminal portions for electrically connecting the information storing portion to the sensor, and a base member with a surface on which each of the information storing portion, the antenna portion and the sensor terminal portions are directly disposed. Plural connecting wire portions electrically connect the sensor terminal portions and the information storing portion, and the connecting wire portions are at least in part aligned in parallel with each other on the base member.

Additionally, this invention, as set out in claim 18, relates to an information communicating member with a memory device, an antenna connected to the memory device, terminal portions for electrical connection to an external device, a base member having a surface on which each of the memory device, the antenna and the terminal portions are directly disposed, and plural connecting wire portions electrically connecting the terminal portions to the memory device, the connecting wire portions being at least in part aligned in parallel with each other on the base member.

It will be appreciated that the claims describe aspects of this invention which are neither taught or suggested by Walker. Insofar as the Office Action suggests Walker's label 46 corresponds to the claimed base member, it should be noted that the integrated circuit 90 is not located directly on the label 46. Rather, as is clear from Fig. 5, integrated circuit is mounted on another structure (unnumbered) which itself is secured to the label 46 by adhesive. So interpreting Walker as does the Office Action it is clear Walker in no way even suggests this invention.

Nor does treating the unnumbered structure in Fig. 5 on which the integrated circuit is located as the base member of the claims alter this conclusion. Fig. 5 only shows the integrated circuit being arranged on the surface of that structure, but does not teach where the printed circuit antenna is located.

That is, neither Figs. 4 nor 5 of Walker disclose how both the integrated circuit 90 and printed circuit antenna 94 are arranged relative to surface of the substrate 92. In particular, while side cross-sectional view Fig. 5 shows the position of the integrated circuit 90, neither Fig. 5 nor any of the other drawings show how the antenna 94 is arranged relative to the substrate 92.

Walker therefore does not anticipate or suggest the aspects of the claims which relate to the antenna portion being located directly on the base member.

Walker also fails to suggest the aspects of claim 2, which provides for an exposed portion of an adhering layer being the surface on which the information storing portion and the antenna portion are directly disposed. While Walker shows in Fig. 5 an adhesive 48, integrated circuit 90 is not located on that layer. In Fig. 5 the unnumbered solid black surface on which integrated circuit 90 is formed is not identified, and, even if that solid black surface were considered to be an adhesive, it remains that Fig. 5 does not show the position of the printed

circuit antenna 94 relative to that solid black surface, much less that the antenna 94 is directly disposed thereon.

Rejected claims 2 and 17 depend from claims 1 and 16, respectively, and so incorporate by reference the features of their respective base claims that patentably distinguish over Walker.

It is well-accepted that a reference which does not identically disclose all the features of a claimed invention cannot anticipate that invention. As noted above, Walker fails to even suggest all the features of this invention. Accordingly, Walker does not anticipate claims 1, 2, 5, 6, 16 or 17.

Favorable reconsideration and withdrawal of this rejection are respectfully requested.

The Rejection Under
35 U.S.C. § 103

Claims 7-11, 18 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of U.S. Patent Appln. Publn. No. 2003/0128245 to Walker et al. ("Walker '245").

Applicants' invention, as set out in claim 7, involves an information communicating member to be disposed on a liquid container for supplying a liquid to a liquid ejecting head of a liquid ejecting apparatus. The information communicating member includes an information storing portion having liquid information with regard to the liquid contained in the liquid container, an antenna portion for communicating the liquid information stored in the information storing portion between the information communicating member and the liquid ejecting apparatus in a wireless manner, sensor terminal portions for electrically connecting the

information storing portion to a sensor for detecting the remaining amount of liquid in the liquid container, and a base member having a surface on which the information storing portion, antenna portion and sensor terminal portions are directly disposed. Connecting wire portions electrically connect the sensor terminal portions and the information storing portion, these connecting wire portions being at least in part aligned in parallel to each other on the base member.

Also, claim 10 involves a liquid container for supplying liquid to a liquid ejecting head of a liquid ejecting apparatus, and this liquid container includes a sensor for detecting the remaining amount of liquid in the liquid container and an information communicating member disposed on the liquid container. The information communicating member has an information storing portion storing therein liquid information with regard to the liquid contained in the liquid container, an antenna portion for communicating the liquid information stored in the information storing portion between the information communicating member and the liquid ejecting apparatus in a wireless manner, sensor terminal portions for electrically connecting the information storing portion to the sensor, and a base member having a surface on which each of the information storing portion, the antenna portion and the sensor terminal portions are directly disposed. Connecting wire portions electrically connect the sensor terminal portions and the information storing portion, and the connecting wire portions are at least in part aligned in parallel to each other on the base member.

Claim 11 pertains to a liquid ejecting apparatus with a liquid ejecting head, a first antenna portion, a liquid container detachably mounted on the liquid ejecting apparatus for supplying liquid to the liquid ejecting head, a sensor, disposed on the liquid container, for detecting the remaining amount of liquid in the liquid container, and an information communicating member disposed on the liquid container. The information communicating

member has an information storing portion storing liquid information with regard to the liquid contained in the liquid container, a second antenna portion for communicating the liquid information stored in the information storing portion between the information communicating member and the liquid ejecting apparatus in a wireless manner using the first antenna portion, sensor terminal portions for electrically connecting the information storing portion to the sensor, and a base member with a surface on which each of the information storing portion, the antenna portion and the sensor terminal portions are directly disposed. Connecting wire portions electrically connect the sensor terminal portions and the information storing portion, and the connecting wire portions are at least in part aligned in parallel to each other on the base member.

Applicants' invention, as set out in claim 18, relates to an information communicating member with a memory device, an antenna connected to the memory device, terminal portions for electrical connection to an external device, and a base member having a surface on which each of the memory device, the antenna and the terminal portions are directly disposed. Connecting wire portions electrically connect the terminal portions to the memory device, and the connecting wire portions are at least in part aligned in parallel to each other on the base member.

As noted above, Walker does not even suggest that the information communicating member includes a base member with a surface on which the information storing portion, antenna portion and sensor terminal portions are directly disposed.

Walker '245 only is cited as suggesting connecting wires arranged in parallel. Even assuming *arguendo* that is true, it remains that Walker '245 does not remedy the above-noted deficiencies of Walker. Figs. 3 and 4 of Walker'245 merely show a linking device 34 that is encapsulated in a single layer of encapsulant 44 having openings 46 for sensors 42 (paragraphs

[0033] - [0035]). This in no way suggests aspects of the claimed invention such as a base member having a surface on which are disposed information storing portion, antenna portion and sensor terminal portions. It is clear from Figs. 3 and 4 that conductive traces 43 pass through the body of the substrate 36, and are not located on the surface of that substrate; rather, conductive traces 43 are located beneath the antenna 40.

Since both Walker and Walker '245 suffer from the same deficiencies, the claimed invention patentably distinguishes over the combination of those references.

The remaining rejected claims, claims 8, 9 and 19, all ultimately depend from and so incorporate by reference all the features of independent claims just shown to avoid the cited references. These claims are therefore patentable over those references at least for the same reasons as their respective base claims.

For all the foregoing reasons, favorable reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

Applicants have made a diligent effort to place this application in condition for allowance and submit that the claims are in condition for allowance. If for any reason, however, the Examiner should deem that this application is not in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below to resolve any outstanding issues prior to issuing a further Office Action.

Other than the additional claim fee authorized in the accompanying Fee Transmittal form (PTO/SB/17), no fees are believed to be due in connection with the filing of this Amendment.

Nevertheless, the Commissioner is authorized to charge any fee now or hereafter due in connection with the prosecution of this application to Deposit Account No. 19-4709.

Prompt and favorable consideration are respectfully requested.

Respectfully submitted,

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